# ATD-5582

# PRO LASER PHOTO TACHOMETER

# OPERATION MANUAL

# TABLE OF CONTENTS

1. FEATURES ..... 1

2. SPECIFICATIONS ..... 1

3. PHOTO TACHOMETER ..... 2

3-1 Reflective Mark ..... 2

3-2 Measuring Procedure ..... 2

3-3 Very Low RPM Measurement ..... 2

4. MEMORY FUNCTION ..... 3

5. BATTERY REPLACEMENT & WARRANTY INFO ..... 4

## 1. FEATURES

- The #332 is a precision RPM measuring instrument. This tachometer features durable, long lasting components and a strong yet light weight double mold plastic housing. The housing has been ergonomically shaped to fit comfortably in either hand.
- This tachometer uses a micro processor CPU, photoelectrical technology and junction Laser technology to precisely measure rotation RPM. This instrument can take measurements in both PHOTO TACH mode (RPM) and TOTAL (TOT) counting mode.
- Wide measuring range, from 0 to 99,999 RPM.
- High resolution, highly visible, backlit digital LCD display.
- Memory function will recall Max. reading, Min. reading and Last recorded reading. During operation, these readings will be automatically stored in memory and can be displayed pressing MEMORY CALL BUTTON.
- Low battery voltage indication.

## 2. SPECIFICATIONS

| | |
|---|---|
| Display: | 5 digits LCD Display, 16mm (0.7") LCD |
| Accuracy: | ±(0.05%+1 digit). |
| Sampling Time: | 0.5 sec (over 120 RPM). |
| Range select: | Auto-Ranging |
| Memory: | Max. Value / Min. Value / Last Value |
| Detecting Distance: | 50mm to 500 mm |
| Time base: | Quartz crystal. |
| Power Consumption: | Approx 50mA |
| Battery: | 9 Volt Battery |
| Operation Temp. | 0℃～50℃. |
| Dimension: | 160x58x39mm |
| Weight: | 151g (including battery). |



## 3. PHOTO TACHOMETER

| | |
|---|---|
| Test Range: | 2.5 to 99,999 RPM (r/min) |
| Resolution: | 0.1 RPM (2.5 to 999 RPM) |
| | 1 RPM (over 1000 RPM) |
| Total Test Range: | 1～99,999 RPM |

### 3-1 REFLECTIVE MARK

Cut and peel adhesive tape provided into 12mm (0.5") squares (approximately thumbnail size) and apply one square to the rotation shaft.

a. The non-reflective area must always be duller than the reflective mark (tape).
b. If the shaft is normally reflective, it must be covered with black tape or black paint before attaching reflective tape.

Shaft surface must be clean and smooth before applying reflective tape.

### 3-2 MEASURING PROCEDURE

Apply a piece of reflective tape to the object being measured. A thumbnail sized piece is recommended. Depress the MEASURE BUTTON and align the visible light beam with the target reflective tape.

Verify that the MONITOR INDICATOR symbol is displayed after the light beam aligns with the target reflective tape. When this symbol is displayed, the tachometer is receiving a good reflection from the tape and accurate measurements can be taken.

### 3-3 VERY LOW RPM MEASUREMENT

If measuring very low RPM values, below 120 RPM, you should attach additional "REFLECTIVE MARKS". Then divide the reading shown by the number of "REFLECTIVE MARKS" to get the real RPM.

## 4. MEMORY FUNCTION

4-1 Readings obtained during operation of the photo tachometer are automatically memorized. The following readings can be recalled from memory, once the MEAS (measure) BUTTON is released.

1. Max. value
2. Min. value
3. Last value.

Please see Figure 1.

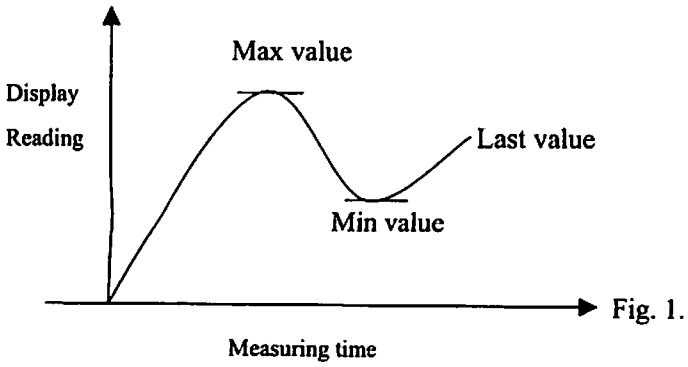


Fig. 1.

4-2 The Memorized values can be recalled to the display as follows.

A. Push the "Mem" button to display the maximum value. The letters "Max" will appear on the display along with the maximum RPM.
B. Push the "Mem" button again to display the minimum value. The letters "Min" will appear on the display along with the minimum RPM.
C. Push the "Mem" button again to display the last recorded value. The word "Last" will appear on the display along with last recorded RPM.



## 5. BATTERY REPLACEMENT

A. When it is necessary to replace the battery (battery voltage less than approx. 4.5V), " [ + − ] " will appear on the display.
B. Remove the screw, slide the battery cover away from the instrument and remove the battery.
C. Install one 9 Volt batteryinto the battery compartment. ***WARNING: Permanent damage to the Circuit may result from incorrect installation.***
D. If the instrument is not to be used for extended periods of time, remove batteries just to be safe.

### 5-1 SUGGESTED BATTERY REMOVAL

If the instrument will not be used for any extended period, remove batteries to provent damaging corrosion.

For after sale service, please send instrument to:

Electronic Specialties, Inc.
139 Elizabeth Ln.
Genoa City, WI 53128

Phone 262-279-1400
Fax 262-279-1300